

**WARNING:** To prevent serious injury, read manual warnings and instructions before use.

## 190 MP WELDER QUICK START GUIDE

- 1** Assemble top handle and bottom supports. (Tools needed: screwdriver)



- 2** Attach gas bottle and regulator hose assembly. (Tools needed: adjustable wrench)



- 3** Use Process Selector Knob to select desired process.



### MIG

- 1** Install wire spool.



- 2** Install MIG gun, turn it on, and squeeze trigger until wire comes out.



- 3** Adjust wire feed tension.



Verify polarity is set correctly for MIG or Flux-core welding wire.

- 4** Adjust wire feed speed and voltage per chart on the inside of welder.



- 5** Verify drive rolls, liner and tips are properly sized for desired wire diameter.



### STICK

- 1** Adjust polarity for the stick electrode.

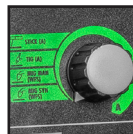


(Usually DCEP - Electrode Positive).

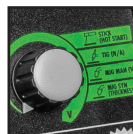
- 2** Disconnect MIG gun as it will be electrically "hot" while Stick welding.



- 3** Adjust amperage.

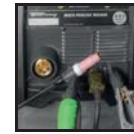


- 4** Adjust hot start if needed.

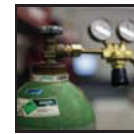


### TIG

- 1** Attach TIG torch and Foot Pedal if desired.



- 2** Verify proper shielding gas is used for TIG welding.



(Most MIG shielding gases will not work)

- 3** Disconnect MIG gun as it will be electrically "hot" while Stick welding.



- 4** Adjust amperage.

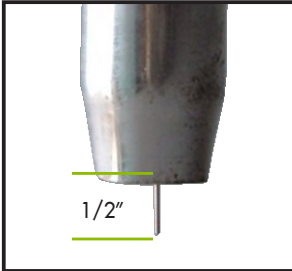


\* Torch & Foot Pedal sold separately

**WARNING:** To prevent fire and serious injury: Keep torch and wire clear of grounded objects while welder is plugged in. Be sure to follow safe welding procedures and wear proper PPE (clothes, welding helmet, safety glasses, welding gloves, boots, etc.)

## MIG WELDING TIPS

### OPTIMAL STICKOUT



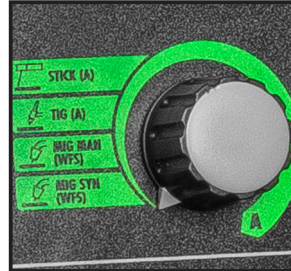
- Stickout 1/2" +/- 1/8"
- Short stickout = more current and more penetration

### VOLTAGE



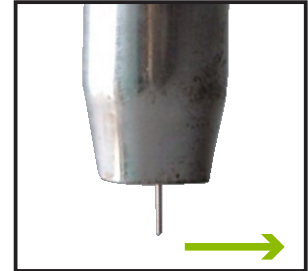
- Affects the arc shape
- Less voltage = tighter arc and potentially more spatter

### WIRE FEED SPEED (WFS)



- Higher wire feed speed equals more amperage
- Can also affect arc shape and penetration

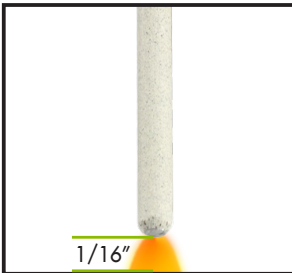
### TRAVEL SPEED



- Affects bead width and height
- Can also affect penetration

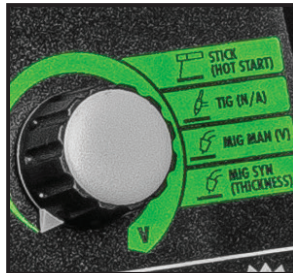
## STICK WELDING TIPS

### OPTIMAL STICKOUT



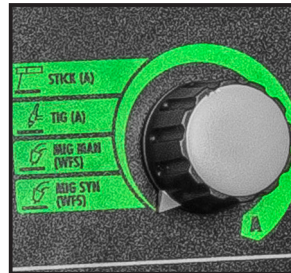
- Optimal stickout varies by electrode type and diameter but is usually approximately 1/16"

### HOT START



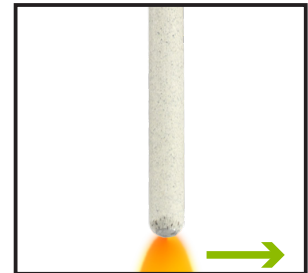
- Provides higher amperage at arc start to prevent electrode sticking

### AMPERAGE



- Affects penetration and bead width
- Can also affect spatter, electrode starting and ability to weld vertical or overhead

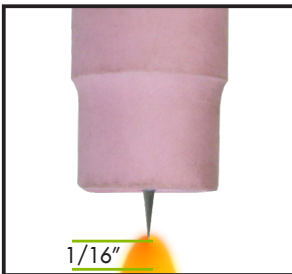
### TRAVEL SPEED



- Affects bead width and height
- Can also affect penetration

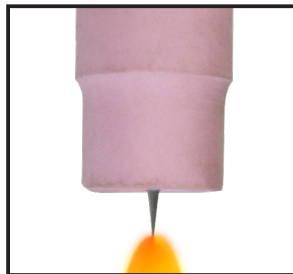
## TIG WELDING TIPS

### OPTIMAL STICKOUT



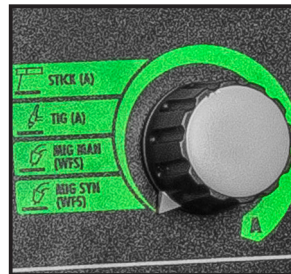
- Optimal stickout varies by electrode type and diameter but is usually approximately 1/16"

### ARC START



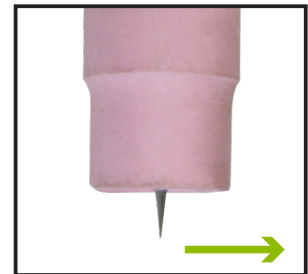
- A scratch or lift Start is often used to initiate the arc
- Try to minimize electrode and tungsten contamination

### AMPERAGE



- Affects penetration and bead width
- Amperage is often referred to as "heat" in TIG Welding

### TRAVEL SPEED



- Affects bead width and height
- Can also affect penetration